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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/330,852	06/11/1999	DAVID L. REESE	005231/07-4014	9904

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EXAMINER	
CHAVIS, JOHN Q	
ART UNIT	PAPER NUMBER
2124	

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/330,852	REESE ET AL.	
	Examiner	Art Unit	
	John Chavis	2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 August 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *08/23/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Detailed Action

1. The preliminary amendment submitted 11/03/00 has been entered.

2. The formal drawings submitted on 11/03/00 have been approved by the examiner.

3. The Information Disclosure Statement dated 08/23/04 has been considered.

4. The double patenting rejection cited in the previous action remains. The applicant Indicates that the double patenting rejection is ambiguous. However, the reference indicated below and in the previous action indicates that each and every element of the claims are provided for in each application and that conflicting claims should be cancelled. The applicant claims that the independent claims of the present application contains recording profile information...recording the address of the last byte; while, both applications are considered to provide for the features, see the first eight lines of claim 1 of the present application and the first seven lines of claim 1 of application 09/425,401. The program being coded in an instruction set in which an interpretation of an instruction depends on a processor mode (see the same locations above for each application). For the features of being efficiently tailored to annotate..., see the last phrase of the present claim 1 of the present application (furthermore, the applicant should note that being tailored to annotate does not specifically indicate that anything is done, just that something is capable of being done) and also see the last two lines of 09/425,401, which indicates that the recorded profile information describing at least all events occurring during the profiled execution interval of the two classes, which indicates that '401 is capable of annotating to resolve mode dependency. All references

above are in respect to claim 1 of each application. Therefore, the claims may not be written identically with the same terminology; but, they are considered to cover the same invention.

5. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

6. Claims 1-30 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-51 of copending Application No. 09/425,401. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Double Patenting Rejection

1. Claim(s) 1-30 of patent # 09/425,401 contain(s) every element of claim(s) 1-51 of the instant application and as such anticipate(s) claim(s) 1-51 of the instant application.

"A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or **anticipated by**, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140

F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus). " ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

However, since both applications are still pending, Claims 1-51 of this application conflict with claims 1-30 of Application No. 09/425,401. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-3, 5, 7-36, 38-44, and 46-51 are rejected under 35 U.S.C. 102(e) as being anticipated by Heisch (6,006,033).

CLAIMS	Heisch
1. A method, comprising: executing a program on a computer,	See the title and the abstract. See col. 2 lines 14-25
without the program **having been** program **having been compiled for profiled execution**, the program being coded in an instruction set in which an interpretation of an **instruction depends on a processor mode** not expressed in the binary representation of the instruction, ...profile information describing a sequence of events occurring in an instruction pipeline;	See col. 2 line 65-col. 3 line 3, which optimizes based on actual behavior (i.e. not having been compiled for profiled execution. Therefore, the feature depends on the processor mode, or information not known at compile time, col. 5 lines 13-28 Instruction pipelines are utilized in modern processors to keep the system from remaining idle while a single function executes, see any computer dictionary. Heisch is considered to inherently provide for the feature for that same reason, see figs. 2, 4 and 5.
during a profile quiescent interval...	See fig. 1.
after a triggering event...	See col. 12 lines 29-54.
a divergence of execution from sequential execution;	See col. 2 lines 51-59.
a processor mode change that is not inferable from the opcode of the instruction that induces the processor mode change	See col. 2 lines 38-59.

taken together with a processor mode before the mode change instruction...; the recorded profile information being effectively tailored to annotate... during the execution interval.	See col. 4 lines 14-21, which indicates that different parts of executed he program can be exercised in different sequences or amounts (which inherently includes pages).

As per claims 2, 3, 5, 7-11, 16-19, 21-26, 28-30, 32-36, 39-44, and 46-51, see the rejection of claim 1.

The features of claims 12-15 are taught via col. 12 lines 29-64 and fig. 1.

In reference to claims 20 and 27, 38, see the abstract "independent of procedure of other structural boundaries.

Claim 31 is taught via col. 12 lines 29-64.

The invention taught by Magnusson et al. (IEEE reference) is also considered pertinent to the applicant's disclosure; since, it also provides for implementation via multiple cpu's (hardware resources) based on their availability in the system, see page 69, which is based on the binary, see the introduction, and utilizes TLB's (page 64) for page simulation (page 66).

Furthermore, Argrawal (5,768,500) specifically references specialized hardware for profiling in col. 8.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 4, 6, 37 and 45 are rejected under 35 USC 103 as obvious over Heisch in view of Roediger (5,960,198). Heisch does not specifically indicate that a timer is used in his system; however, the feature is taught by Roediger in an analogous art, col. 4 lines 7-13, to enable control over when data is collected, col. 1 lines 49-64 based on a bit, col. 3 lines 3-15, via multiple cpu's (col. 5 lines 42-46) executing simultaneously in parallel (col. 8 lines 14-29) and initiated via hardware (col. 6 lines 61-col. 7 line 8, col. 8 lines 21-29). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Heisch's invention with the teachings of Roediger for the same reasons utilized by Roediger to enable control over when data is collected to improve performance in specific areas.

Furthermore, the feature of determining how pages are offset is considered a choice of design; since, the number of the page assigned does not affect the process of profiling. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the feature in Heisch's system; since, some type of numbering is required for pages and it would have been obvious to a person of ordinary skill in the related art at the time of the invention that various selections are available and selectable to enable access to specific pages.

Response to Arguments

Applicant's arguments filed 08/23/04 have been fully considered but they are not persuasive. The applicant indicates that the feature of recording the address of the last

byte of at least one instruction executed...during a profiled interval... in not mentioned in the action. However, this is considered the essence of profiling to record required information describing events that occur during execution. Therefore, the rejection remains.

Also, the annotating feature is also considered inherent in profiling systems and further provided by Heisch's address trace, see the abstract. Note also that Heisch's system functions (independent of procedure or structural boundaries, for example different sizes or types of instructions, which requires interpretations), see col. 2 lines 43-51.

Although in context with the information provided, the term "Y" in the 103 rejection should not have caused a major confusion; since, it is merely a typographical error. However, the applicant is hereby provided a new action with the error corrected.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Chavis whose telephone number is (703) 571-3720. The examiner can normally be reached on M-Tue & Th-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703) 571-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John Chavis
Primary Examiner AU-2124